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EXAMINER	
KASSA, HILINA S	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/632,132	CARROLL, JEREMY JOHN	
	Examiner	Art Unit	
	Hilina S. Kassa	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 November 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14 and 18-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14 and 18-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/ are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *11/06/07*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. The amendment submitted on 11/05/2007 has been acknowledged. The Examiner also considered the newly added claims 18-23.

Response to Arguments

2. Applicant's arguments with respect to claims 1-14 and 18-23 have been considered but are moot in view of the new ground(s) of rejection.

3. Applicant's arguments, filed on 11/05/2007, with respect to the rejection(s) of claim(s) 1-14 and 18-23 under Anderson (US Patent 6,646,758) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Owa et al. (US Patent Number 6,348,971 B2).

Claim Objections

4. Claims 3 and 10 are objected to because of the following informalities:

In claim 3, line 6, **"requirments(s)"** should be changed to **"requirement(s)"**.

In claim 10, line 1, **"a method as claimed claim 1"** should be changed to **"a method as claimed in claim 1"**.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

6. Claims 1-2, 5-14 and 18-23 are rejected under 35 U.S.C. 102(a) as being anticipated by Owa et al. (US Patent Number 6,348,971 B2).

(1) regarding claim 1:

As shown in figure 1, Owa et al. disclose a method of printing at least one print job in a computer-based printer system (1, 5 figure 1, column 3, lines 16-22), the system comprising at least one printer and at least one computer connected to said at least one printer (column 3, lines 16-22; note that a host computer 1 and one or more of printers 5, 2a-2d are connected), wherein the at least one printer has a plurality of different printing configurations (column 3, lines 51-65; note that the printers have different configurations i.e. model names, performance, additional functions) at least one of which is manually configurable (column 3, line 66-column 4, line 5; note that user can also manually set up the desired configuration) and the at least one computer is capable of generating said at least one print job (11, figure 2, column 4, lines 44-52; note that the data transfer section 17 passes the print data generated by the print data generation section 18 to the operating system of the host computer1, for transferring the print data to the printer selected by the output destination printer selection section 11), said at least one print job having corresponding printing requirements (column 5, lines 1-8; note

that such requirement is considered as a color/monochrome, paper size, resolution, double-side printing etc.), each printing configuration being capable of satisfying one or more printing requirements (column 5, lines 16-20; note that for text printing the desired print quality and size gets satisfied by the selected printer), the method comprising the steps of using the printing system to:

i) create one or more print jobs (column 4, lines 44-48; print data gets generated);

ii) determine whether or not the print job or each print job can be printed using said at least one printer by comparing the printing requirements of the print job or each print job and the current printing configurations of the at least one printer (column 5, lines 30-44; note that the printer selection condition section compares the set up print conditions with the basic information of the printer);

iii) when one of more of the print jobs cannot be printed using said at least one printer on the basis of said plurality of different printing configurations (column 5, lines 45-57; note that the printer which does not satisfy the printing requirement does not get selected so the print job does not get processed to be printed), automatically determining at least one reconfiguration of the printer configuration(s) that would be capable of satisfying the printing requirement(s) of said one or more print job (s) (column 6, lines 6-26; note that if there is no printer satisfying the printing requirements, an alternative condition gets checked and an alternative printer gets selected to process the print job); and

iv) performing such a reconfiguration of the printer configuration automatically or providing information to enable such a reconfiguration to be carried out manually (column 6, lines 6-26; note that if there is no printer satisfying the printing requirements, an alternative condition gets checked and an alternative printer gets selected to process the print job this configuration gets established without user's manual setting i.e. automatically).

(2) regarding claim 2:

Owa et al. further disclose a method as claimed in claim 1, wherein step iv) comprises determining when said reconfiguration would require manual reconfiguration of said one or more printer(s) by a user of the printing system (column 5, line 64-column 6, line 5; note that if there is no printers to be selected based on the print requirements, a message gets displayed for the user to manually enter print conditions), and if so using the printing system to generate and present to said user instructions for manually reconfiguring said one or more printer(s) prior to printing of the print one or more job(s) by the printing system (column 5, line 64-column 6, line 5; note that if there is no printers to be selected based on the print requirements, a message gets displayed for the user to manually enter print conditions).

(3) regarding claim 5:

Owa et al. further disclose a method as claimed in claim 1, in which there are a plurality of different preferred reconfigurations which would involve both manual

configuration by the user (column 5, line 64-column 6, line 5; note that if there is no printers to be selected based on the print requirements, a message gets displayed for the user to manually enter print conditions) and automatic configuration by the printing system (column 6, lines 6-26; note that if there is no printer satisfying the printing requirements, an alternative condition gets checked and an alternative printer gets selected to process the print job this configuration gets established without user's manual setting i.e. automatically).

(4) regarding claim 6:

Owa et al. further disclose a method as claimed in claim 1, in which there are a plurality of different preferred reconfigurations, and prior to step iv) these preferred configurations are presented to user of the printing system so that the user can select a particular reconfiguration, for which reconfiguration instructions are then presented in step iv) (column 5, line 64-column 6, line 5; note that if there is no printers to be selected based on the print requirements, a message gets displayed for the user to manually enter print conditions).

(5) regarding claim 7:

Owa et al. further disclose a method as claimed in claim 2, in which a computer includes a user display, and said presentation of instructions includes the display of reconfiguration instructions on the user display (column 5, line 64-column 6, line 5; note

that if there is no printers to be selected based on the print requirements, a message gets displayed for the user to manually enter print conditions).

(6) regarding claim 8:

Owa et al. further disclose a method as claimed in claim 2, in which said presentation of instructions includes the printing of reconfiguration instructions on a printer (column 7, lines 12-22).

(7) regarding claim 9:

Owa et al. further disclose a method as claimed in claim 8, in which a computer includes a user display, in which said presentation of instructions includes a message displayed on the user display informing the user that reconfiguration instructions are to be printed on said printer (column 7, lines 12-22; column 10, lines 35-43).

(8) regarding claim 10:

Owa et al. further disclose a method as claimed claim 1, in which after reconfiguration of the printer(s) (column 6, lines 6-12; note that the printers are selected based on the condition items assigned), the print job is assigned to more than one printer (column 6, lines 12-17; note that more than one printers are to be selected based on the information on each printer), and the printing system presents to a user of the printing system instructions for any or all of locating, assembling, collating, binding, or

otherwise combining material printed from the printers (column 4, line 66-column 5, lines 5; note that print location is gets specified to user).

(9) regarding claim 11:

Owa et al. further disclose a method as claimed in claim 10, in which the print job has a plurality of different parts (column 8, lines 7-10), each part having different printing requirements (column 8, lines 14-24), and the print job is split according to those different requirements (column 8, lines 24-31).

(10) regarding claim 12:

As shown in figure 1, Owa et al. disclose a computer-based printing system, the printing system comprising at least one printer and at least one computer connected to said printer(s) (column 3, lines 16-22; note that a host computer 1 and one or more of printers 5, 2a-2d are connected), the or each printer having a plurality of different printing configurations (column 3, lines 51-65; note that the printers have different configurations i.e. model names, performance, additional functions) at least one of which is manually configurable (column 3, line 66-column 4, line 5; note that user can also manually set up the desired configuration) and the or each computer being capable of generating at least one print job (11, figure 2, column 4, lines 44-52; note that the data transfer section 17 passes the print data generated by the print data generation section 18 to the operating system of the host computer1, for transferring the print data to the printer selected by the output destination printer selection section 11), said print

job(s) having corresponding printing requirements (column 5, lines 1-8; note that such requirement is considered as a color/monochrome, paper size, resolution, double-side printing etc.), each printing configuration being capable of satisfying one or more printing requirements (column 5, lines 16-20; note that for text printing the desired print quality and size gets satisfied by the selected printer), wherein the printing system is arranged to:

determine whether or not each print job can be printed using said printer(s) by comparing the printing requirements of the or each print job and the current printing configurations of the printer(s) (column 5, lines 30-44; note that the printer selection condition section compares the set up print conditions with the basic information of the printer); and

when one or more of the print jobs cannot be printed using said printer(s) on the basis of said current printing configuration (column 5, lines 45-57; note that the printer which does not satisfy the printing requirement does not get selected so the print job does not get processed to be printed), to determine automatically at least one reconfiguration of the printer configuration(s) that would be capable of satisfying the printing requirement(s) of said print job(s) (column 6, lines 6-26; note that if there is no printer satisfying the printing requirements, an alternative condition gets checked and an alternative printer gets selected to process the print job); and when said reconfiguration would require manual reconfiguration of said printer(s) by a user of the printing system (column 5, line 64-column 6, line 5; note that if there is no printers to be selected based on the print requirements, a message gets displayed for the user to manually enter print

conditions), then use the printing system to generate and present to said user instructions for manually reconfiguring said printer(s) prior to printing of the print job(s) by the printing system (column 5, line 64-column 6, line 5; note that if there is no printers to be selected based on the print requirements, a message gets displayed for the user to manually enter print conditions).

(11) regarding claim 13:

Owa et al. further disclose a computer system programmed for providing print job information to printers connected to the computer system by a computer network (column 3, lines 16-22; note that a host computer 1 and one or more of printers 5, 2a-2d are connected), wherein one or more processors of the computer system are programmed to:

create a print job (column 4, lines 44-48; print data gets generated);

determine whether or not the print job can be printed using one or more printers in communication with the computer system by comparing the printing requirements of the print job and the current printing configurations of the one or more printers (column 5, lines 30-44; note that the printer selection condition section compares the set up print conditions with the basic information of the printer);

when the print job cannot be printed using the one or more printers in their current printing configuration (column 5, lines 45-57; note that the printer which does not satisfy the printing requirement does not get selected so the print job does not get processed to be printed), automatically determine at least one reconfiguration of the one

or more printers that would be capable of satisfying the printing requirements of said print job (column 6, lines 6-26; note that if there is no printer satisfying the printing requirements, an alternative condition gets checked and an alternative printer gets selected to process the print job); and

perform such an automatic reconfiguration of the one or more printers or providing information to enable such a reconfiguration to be carried out by another (column 6, lines 6-26; note that if there is no printer satisfying the printing requirements, an alternative condition gets checked and an alternative printer gets selected to process the print job this configuration gets established without user's manual setting i.e. automatically).

(12) regarding claim 14:

As shown in figure 8, Owa et al. further disclose computer readable media having stored thereon a computer program containing code adapted to program one or more processors of a computer system to (45, 41, 61 figure 8; column 9, lines 31-44; note that the print data generating system communicates with the printer):

obtain current printing configurations of one or more printers in communication with the computer system (column 9, lines 45-56; note that the printer driver generates print data to be output to the printer);

determine whether or not a print job can be printed using such one or more printers by comparing the printing requirements of the print job and the current printing configuration of the one or more printers (column 5, lines 30-44; note that the printer

selection condition section compares the set up print conditions with the basic information of the printer);

when the print job cannot be printed using the one or more printers in their current printing configuration (column 5, lines 45-57; note that the printer which does not satisfy the printing requirement does not get selected so the print job does not get processed to be printed), automatically determine at least one reconfiguration of the one or more printers that would be capable of satisfying the printing requirements of the print job (column 6, lines 6-26; note that if there is no printer satisfying the printing requirements, an alternative condition gets checked and an alternative printer gets selected to process the print job); and perform such a reconfiguration of the one or more printers or providing information to enable such a reconfiguration to be carried out by another (column 7, lines 23-39).

(13) regarding claim 18:

Owa et al. further disclose a method as claimed in claim 1 wherein the at least one reconfiguration of the printer configuration(s) capable of satisfying the printing requirement(s) of said print job(s) is determined by automatically analyzing a set of plausible reconfigurations (column 7, line 67-column 8, line 4; note that satisfying the conditions desired by the user i.e. a print installed at a close location and operating at high speed is considered as a plausible configuration).

(14) regarding claim 19:

Owa et al. further disclose a method as claimed in claim 18 wherein the set of plausible reconfigurations is determined by iterating through features associated with said one or more printers (column 7, lines 48-67; note that the scores associated with printers PRN1-PRN3 is described. Also, the scores are given according to the speed configuration of the printers which is considered as the iterating feature of printers based on their speed capacity).

(15) regarding claim 20:

Owa et al. further disclose a computer-based printing system as claimed in clam 12 wherein the at least one reconfiguration of the printer configuration(s) capable of satisfying the printing requirement(s) of said print job(s) is determined by automatically analyzing a set of plausible reconfigurations (column 7, line 67-column 8, line 4; note that satisfying the conditions desired by the user i.e. a print installed at a close location and operating at high speed is considered as a plausible configuration).

(16) regarding claim 21:

Owa et al. further disclose a computer-based printing system 20 wherein the set of plausible reconfigurations is determined by iterating through features associated with said one of more printers (column 7, lines 48-67; note that the scores associated with printers PRN1-PRN3 is described. Also, the scores are given according to the speed configuration of the printers which is considered as the iterating feature of printers based on their speed capacity).

(17) regarding claim 22:

Owa et al. further disclose a computer system as claimed in claim 13 wherein the at least one reconfiguration of the printer configuration of the printer configuration(s) capable of satisfying the printing requirements(s) of said print job(s) is determined by automatically analyzing a set of plausible reconfigurations (column 7, line 67-column 8, line 4; note that satisfying the conditions desired by the user i.e. a print installed at a close location and operating at high speed is considered as a plausible configuration).

(18) regarding claim 23:

Owa et al. further disclose a computer system 22 wherein the set of plausible reconfiguration is determined by iterating through features associated with said one or more printers (column 7, lines 48-67; note that the scores associated with printers PRN1-PRN3 is described. Also, the scores are given according to the speed configuration of the printers which is considered as the iterating feature of printers based on their speed capacity).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

> the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Owa et al. (US Patent Number 6,348,971 B2) as applied to claim 1 above, and further in view of Ueda et al. (US Patent Number 7,046,383 B1).

(1) regarding claim 3:

Owa et al. disclose a method as claimed in claim 1, in which the method involves prior to step iv) the steps of v*) calculating an economic cost for effecting each of a plurality of possible reconfigurations* for which the printer configuration(s) would be capable of satisfying the printing requirements (s) of said one or more print job(s) (column 7, line 67-column 8, line 4; note that the printer most satisfying the conditions desired by users is selected automatically); and vi) *selecting according to the calculated economic costs* one or more preferred reconfigurations of said one or more printer(s) for which reconfiguration instructions will be presented to said user (column 7, lines 23-67; note that according to the scores given to printers PRN1-PRN3, user gets instructed or updated of the configurations).

Owa et al. disclose all of the subject matter as described as above except for specifically teaching calculating an economic cost for effecting each of a plurality of possible reconfigurations and selecting to the calculated economic costs.

However, Ueda et al. teach calculating an economic cost for effecting each of a plurality of possible reconfigurations (column 7, lines 41-59; note that a cost calculating

means is informed of the performance of each printers beforehand and the display means displays the printers together with additional information or attributes particular thereto, such configurations also include cost, printing time, image quality/resolution etc.) and selecting to the calculated economic costs (column 5, lines 37-42, lines 48-54; note that the printer automatically gets selected based on the basis of printing cost).

Owa et al. and Ueda et al. are combinable because they are from the same field of endeavor. At the time of the invention, it would have been obvious to a person of ordinary skilled in the art to calculate an economic cost for effecting each of a plurality of possible reconfigurations and select to the calculated economic costs. The suggestion/motivation for doing so would have been in order to select and efficiently utilize a printer with most advantageous print configuration and printing cost (abstract, lines 8-11). Therefore, it would have been obvious to combine Owa et al. with Ueda et al. to obtain the invention as specified in claim 3.

(2) regarding claim 4:

Owa et al. disclose all of the subject matter as described as above except for specifically teaching in which there are a plurality of preferred reconfigurations, and the reconfiguration information presented to said user includes the corresponding economic cost for each preferred configuration.

However, Ueda et al. teach in which there are a plurality of preferred reconfigurations (column 7, lines 41-59; note that a cost calculating means is informed of the performance of each printers beforehand and the display means displays the

printers together with additional information or attributes particular thereto, such configurations also include cost, printing time, image quality/resolution etc), and the reconfiguration information presented to said user includes the corresponding economic cost for each preferred configuration (column 5, lines 37-42, lines 48-54; note that the printer automatically gets selected based on the basis of printing cost).

Owa et al. and Ueda et al. are combinable because they are from the same field of endeavor. At the time of the invention, it would have been obvious to a person of ordinary skilled in the art to calculate an economic cost for effecting each of a plurality of possible reconfigurations and select to the calculated economic costs. The suggestion/motivation for doing so would have been in order to select and efficiently utilize a printer with most advantageous print configuration and printing cost (abstract, lines 8-11). Therefore, it would have been obvious to combine Owa et al. with Ueda et al. to obtain the invention as specified in claim 4.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ashe (US Patent Number 6,999,188 B1) discloses a printer that has a controller configured to receive one or more printerlets and data from one or more computers connected thereto.

Han (US Publication Number 2003/0043407) discloses a printer control system for and a printer control method of controlling a print option, such as a line or text

thickness value include generating an information registration window that enables a user to configure the printer option.

10. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Hilina Kassa whose telephone number is (571) 270-1676.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Twyler L. Haskins could be reached at (571) 272- 7406.

Any response to this action should be mailed to:

Commissioner of Patent and Trademarks

Washington, D.C. 20231

Or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Hilina Kassa

January 18, 2008

TWYLER LAMB HASKINS
SUPERVISORY PATENT EXAMINER